DOCUMENT RESUME

ED 353 797 FL 020 568

AUTHOR Huckabay, Hunter
TITLE A Cyclic Approach to Simple Cliticization.
PUB DATE 90
NOTE 15p.; For serial issue in which this paper appears, see FL 020 565.
PUB TYPE Reports - Research/Technical (143) -- Journal Articles (080)
JOURNAL CIT Kansas Working Papers in Linguistics; v15 n1 p42-55 1990

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Language Variation; Linguistic Theory; *North American English; *Phrase Structure; *Sentence Structure; *Structural Analysis (Linguistics); Verbs
IDENTIFIERS *Clitics; *English (Southern)

ABSTRACT

A sentence such as "I am going to find the store" may be reduced to "I[ma]find the store." This reduction consists of a reduction of the auxiliary, changing "I am" to "I'm," and an adjunction of infinitival "to" onto "going" to derive "gonna." From there, "gonna" is reduced to produce the complex clitic I[ma]. This series of reductions can either be implemented consecutively, without interacting with other operations, or the reductions can be derived cyclically. The cyclic approach avoids a number of conceptual and empirical problems while also establishing the fundamental nature of cyclicity. (Contains 13 references.) (Author)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
S. Manuel-Dupont
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED353797

A CYCLIC APPROACH TO SIMPLE CLITICIZATION

Hunter Huckabay

Abstract: A sentence such as *I am going to find the store* may be reduced to *I[mə] find the store*. This reduction consists of a reduction of the auxiliary, changing *I am* to *I'm*, and an adjunction of infinitival *to* onto *going* to derive *gonna*. From there, *gonna* is reduced to produce the complex clitic *I[mə]*. This series of reductions can either be implemented consecutively, without interacting with other operations, or the reductions can be derived cyclically. The cyclic approach avoids a number of conceptual and empirical problems while also establishing the fundamental nature of cyclicity.

Certain varieties of Southern American English allow the interesting and hitherto unattested case of simple cliticization given in (1b), which derives from the full form given in (1a)[1].

(1a) I am going to eat some boudin.
(1b) I [mə] eat some boudin.

A "simple" clitic, according to Zwicky's 1977 definition, occurs when an otherwise independent morpheme, acting as a clitic, is adjoined to a host without causing a linear reordering of the syntactic string[2]. Remarkably, (1b) contains a reduced matrix verb whereas the more familiar cliticizations in English reduce nonlexical categories such as INFL, infinitival *to*, auxiliary, and the negative particle. Crucial to the operation of this exceptional brand of cliticization is the presence of auxiliary *am* and the verb *go*, appearing in its present participle form and exercising its subcategorization option for an S' complement. Given these restrictions, the clitic presented in (1b) is not a token from a paradigm, as (2) demonstrates, because no other form of *be* will participate in the required matrix verb reduction.

(2a) *You [rə] eat some boudin.
(2b) *He [zə] eat some boudin.
(2c) *We [rə] eat some boudin.
(2d) *Y'all [rə] eat some boudin.
(2e) *They [rə] eat some boudin.

Furthermore, this sort of cliticization does not result from some general morphological or phonological process that attaches to *am* some vowel taken from the stem of any main verb that takes an S' complement[3]. As shown by (3) and (4), (1b) is the product of a unique relationship existing between *am* and *going*, as only these two elements will combine successfully to derive the sort of clitic that is under inspection.

(3a) I am wanting to drink a Dixie.

FL 020 568

Kansas Working Papers in Linguistics, 1990, Vol. 15, no.1, pp.42-55

BEST COPY AVAILABLE

(3b) *I [mə] drink a Dixie.
(4a) I am having to drink a Dixie.
(4b) *I [mə]drink a Dixie.

Having discerned the exceptional nature of the cliticization found in (1b), we might investigate the derivation of the clitic found there in hopes that such an effort will disclose important properties holding of cliticization in general. According to Kaisse 1985, the process of simple cliticization takes an S-structure such as (5a) as its input and restructures this syntactic representation to join the clitic to its host as in (5b). Following the restructuring of the syntax, an allomorph corresponding to the newly structured clitic is selected, and (5c) results. Thus, (5) demonstrates the process of Auxiliary Reduction (AR).

(5a) He is discussing the Baltic secession.
(5b) [[He] is] discussing the Baltic secession.
(5c) [hiz] discussing the Baltic secession.

Consideration of these processes in those cases in which (1b) derives from (1a) will reveal that the restructuring rules of simple cliticization must apply in a cyclic interaction with the selectional rules of allomorphy. Without a cyclic instantiation of these components of the grammar, as will become clear, we will be forced into theoretically untenable claims concerning the derivation of (1b).

That simple cliticization can apply in a cyclic frame work has been argued by Bresnan 1971, though she has cliticization interact on a cyclic basis with syntactic rules. But Bresnan's formulation of clitic cyclicity is suspect in that other than utilizing the bracketing created by the syntax, simple cliticization does not respond to the syntactic component, a response Kaisse 1985 implies is crucial when she situates the operations of simple cliticization in a post S-structure position. In Kaisse's model, the processes of restructuring and allomorphic selection that produce simple clitics function in an autonomous component of the grammar that is separate from the syntax, and so by extrapolation the operations of cliticization would work within their own independently defined cycles. If the derivation of (1b) necessitates the cyclic action of the forces of simple cliticization without outside intervention by other branches of the grammar, then the clitic in (1b) has provided significant support for Kaisse's claims about the existence and autonomy of a component of the grammar responsible for the processes of simple cliticization. In addition, ascribing cyclicity to simple cliticization equips the component responsible for cliticization with some of the same machinery attributed to the syntactic and phonological components. Thus, we have further arguments that a grammar, though segmented into distinct components, nevertheless operates according to general, overriding cognitive principles, one of those principles being cyclicity.

Before turning to the alternatives available as possible derivations of (1b) and embarking on an explication that assumes *I[mə]* is a cliticized form composed of more than a reduced form of auxiliary *am* and an attached vowel, I should first mount some evidence proving that this form is indeed a clitic. This evidence must crucially extend beyond that gathered to argue that the AR yielding *I'm* is a process of cliticization. In other words, since I want to prove that *I[mə]* involves cliticization beyond that producing *I'm*, evidence supporting my claim

regarding *I[mə]* should not likewise apply to prove that *I'm* is a clitic. To establish the cliticized status of *I[mə]* we can turn to the tests supplied by Zwicky and Pullum 1983 and Zwicky 1985 to discount two other likely analyses for the form: (1) that *I[mə]* is composed of the well-established clitic *I'm* and an inflectional affix ə, or (2) that *[mə]* in (1b) somehow forms an independent word in the manner of particles.

Ruling out the possibility that *I'm* is inflected with ə in (1b) is straightforward considering an "absolute" test Zwicky and Pullum 1983 offer to distinguish between clitics and affixes. According to these authors, only clitics can attach to a form that already contains a clitic. Once a clitic has adjoined to an independent word, an affix is no longer eligible to attach to that structure. Thus, cases of clitics being added to clitics through, for instance, multiple AR are commonplace as demonstrated by familiar sentences such as (6b), where the cliticized form of *have* attaches to the cliticized form of *will*. Further, clitics can be added to affixes, as in (7a) when auxiliary *will* reduces and attaches to the genitive NP *Sherman's*. However, an affix can never be attached to a clitic without provoking the ungrammaticality associated with (7b) where the host-clitic form of *Sherman'll* is inflected with the possessive affix.

(6a) John will have retraced Sherman's March by June.
(6b) John'll've retraced Sherman's March by June.
(7a) I want a sword that will lay waste to Atlanta, and Sherman's'll do fine.
(7b) *I want a sword that will lay waste to Atlanta, and Sherman'll's do fine.

In the case of (1b), as I will argue extensively later, a coherent account of the derivation of *I[mə]* will posit an initial instance of AR, yielding the clitic *I'm*. From there, *gonna* is reduced to adjoin to *I'm* and an appropriate allomorph is chosen for this adjunction structure. Thus, when (1a) serves as the source, (8) is some intermediate step in the derivation of (1b).

(8) I'm gonna eat some boudin.

In other words, when *gonna* is reduced, it is attached to the clitic *I'm* that has resulted from AR. (7b) and the arguments of Zwicky and Pullum 1983 prove that an affix cannot attach to a clitic, so ə, when it attaches to the clitic *I'm*, must not be an affix. Plainly, since ə is attached to a clitic, then by this reasoning, must itself be a clitic and the entire structure *I[mə]* a complex clitic.

On the other hand, to establish that *I[mə]* represents one clitic rather than two words, we can consult the tests proffered in Zwicky 1985 which are designed to distinguish clitics from particles. Though Zwicky warns that in the case of theoretical primitives such as "word" and "clitic" we can only construct lists of characteristics as opposed to formulating a definition, applying the tests provided by Zwicky reveals that *I[mə]* has every characteristic that may be attributed to a clitic and no characteristic that is associated with a particle. While any of Zwicky's tests leads to the conclusion that *I[mə]* behaves as a clitic, we will consider here only a random assortment of the touchstones.

For instance, an examination of the phonological constituency of *I[mə]* reveals that this unit forms a phonological word as a clitic would rather than a phonological phrase consisting of independent words. The phonological cohesiveness of *I[mə]* is best demonstrated by the observation that the internal sandhi rule of nasalization can spread the nasal feature belonging to *m* onto the schwa. Thus, *I[mɪə]* has a nasalized variant *I[mə̃]*. As Zwicky points out, internal sandhi rules apply only within phonological words, and so nasalization gives a symptomatic basis for concluding that *I[mə]* represents a single, discrete (cliticized) word.

Furthermore, Zwicky notes that while independent words combine either with other words or with phrases (e.g., a preposition combines with either a noun or a noun phrase), any item that seeks only a word as syntactic partner must be a clitic or an affix[4]. Thus, if the distribution of an item can be characterized in terms of its willingness to combine only with single words and it is not an affix (cf. (6) and (7)), then that item must be a clitic. As was discussed above, the occurrence of the *I[mə]* form depends crucially on the presence of the auxiliary *am* followed by the main verb *go*. In other words, the combination entailed by *I[mə]* by the concatenation of individual words without regard for the phrasal constituency involved. As such, this construction has the narrow distribution associated with clitics rather than particles.

In addition, syntactic movement provides a useful metric for determining whether an element is part of a word or if it is itself an independent word. As with all syntactic processes, movement operates on a syntactic constituent, which can comprise a word but not a subpart of the word. Therefore, the syntax can move words but may not disturb their components. (9) proves that no subpart of the *I[mə]* construction may be independently moved (cf. (9a-c)), though the entire form, being a single word and thus a syntactic constituent, can be moved (cf. (9d))[5].

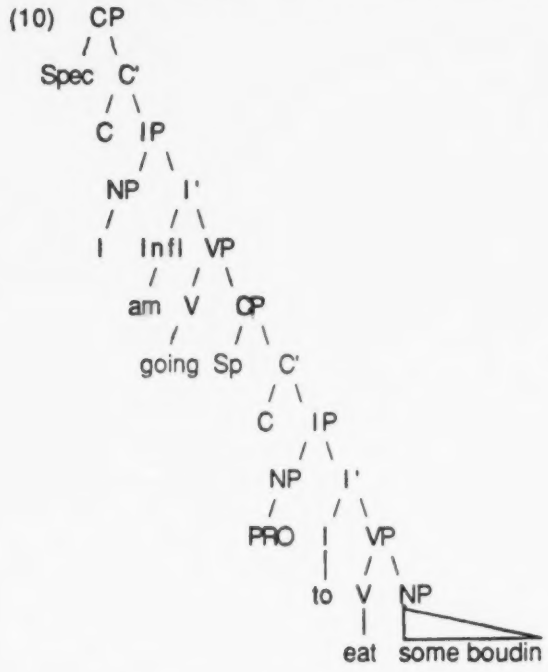
(9a) *I, on the other hand, [mə] root for the Huskies.
(9b) *m'I [ə] root for the Huskies?
(9c) *I'm, on the other hand, [ə] root for the Huskies.
(9d) What [I [mə]]$_i$ do is t$_i$ root for the Huskies.

So by (6)-(7) and the attendant arguments we have seen that *I[mə]* does not involve inflection, and by the tests from Zwicky 1985 we have ascertained that *I[mə]* shows none of the earmarks associated with particles. Thus, *I[mə]* can only be analyzed as a pure simple clitic, whose derivation owes to a complex and extensive reduction of a significant portion of a sentence. Let us now turn to a study of that derivation.

To discover how the grammar can generate (1b)[6], I should first identify the constituent processes of cliticization at work in (1b) as well as the direction of those processes. An investigation of (1b) and certain of its counterparts points to three distinct encliticizations, where two of these encliticizations proceed independently and the third takes the other two as input. To grasp the mechanisms of these separate processes, suppose the phrase marker for (1a),

from which (1b) is derived in the relevant cases, is as presented in (10), whose X-bar structure is suggested by Chomsky 1986.

(10)



Now, to move from (1a) to (1b), the auxiliary of (1a) cliticizes onto its subject in a routine instance of AR illustrated by (11a) while infinitival *to* cliticizes onto *going* in an unspectacular demonstration of *to*-contraction shown in (11b).

(11a) I'm going to eat some boudin.
(11b) I am gonna eat some boudin.

The AR in (11a) is accounted for by Kaisse 1985 with the Government Condition given in (12), and the instance of *to*-contraction seen in (11b) is regulated by Lobeck's 1983 condition given in (13).

(12) The Government Condition: Auxiliaries may cliticize only onto a constituent that they govern.
(13) *to*-contraction: *to* may encliticize to a host verb that governs the minimal S' (=CP according to Chomsky 1986) containing *to*.

Government is based on c-command, as these two related notions are defined in (14) and (15).

(14) α c-commands ß iff. α does not dominate ß and every maximal projection that dominates α dominates ß.
(15) α governs ß iff. α c-commands ß and every maximal projection that dominates ß dominates α.

Returning to (10) and its relation to (11) as mediated by (12) and (13), we see that *am* in (10) governs the subject NP, so that in (11a) the auxiliary has cliticized onto an NP it governs in accord with (12). Likewise, *to* in (10) is contained in a CP (or S') that is governed by *going*, enabling the encliticization of *to* onto *going* in (11b) as provided for by (13). Thus, the government relations in (10) *are* such that AR and *to*-contraction can apply without innovation beyond the establishment of (12) and (13). Furthermore, AR and *to*-contraction can carry on more or less oblivious to each other as evidenced by the fact that in (11) neither process affects the execution of the other. So, to derive (1b) from (1a), AR and *to*-contraction will proceed initially in the manner just described to arrive at an intermediate stage corresponding to (16).

(16) I'm gonna eat some boudin.

Once these more familiar cliticizations have been effected to create a string along the lines of (16), a third operation must meld the clitic resulting from AR with that resulting from *to*-contraction to derive a complex clitic. Evidence supplied by pause insertion phenomena (cf. (17)) and by (9a) suggests that this final step is a product of encliticization rather procliticization.

(17a) I [mə] ... lose my job.
(17b) *I ... [mə] lose my job.

Also, any claim that the cliticization of *gonna* onto *I'm* need not occur last in the sequence described here is squelched by (18), which demonstrates that AR as well as *to*-contraction feeds the final reduction of *gonna*. That is, unless *am* is reduced in (1a), *to*-contraction and *gonna*-reduction would yield the unacceptable output of (18).

(18) *I am ə lose my job.

As Ellen Kaisse (personal communication) points out, *gonna* appears to require an NP-host to license its reduction. As such, the cliticization of *gonna* onto the auxiliary obligatorily follows the incorporation of the auxiliary into the subject NP by the execution of AR. When *gonna* adjoins to *I'm*, an allomorph corresponding to the entire string of adjunctions is selected, yielding the surface form *I[mə]*[7].

Clearly then, in the dialects in which *I[mə]* is produced grammatically, (1b) is derived by an encliticization that takes as input the structure in (16) built by the parallel action of AR and *to*-contraction. Viewing the subsequent process of *gonna*-reduction within a derivational framework exposes the advantages of a cyclic design for the grammatical component hosting the restructuring rules of cliticization and the selectional rules of allomorphy.

Certainly, we could derive (1b) without invoking cyclicity. Supposing AR and *to*-contraction to apply simultaneously, a non-cyclic derivation for (1b) would have to conform to (19).

(19) output of syntax: [NPI] [AUX am] [VP [V going] [S' to eat some boudin]]
cliticization I: [NP[I] am$_i$] [AUX t$_i$] [VP [V[going] to$_j$] [CP t$_j$ eat some boudin]]
cliticization II: [NP[[I] am$_i$] [going] to$_j$]$_k$] [Aux t$_i$] [VP [V t$_k$] [CP t$_j$ eat some boudin]]]
allomorph: [NP[I] mə] [Aux t$_i$] [VP [V t$_k$] [CP t$_j$ eat some boudin]]]
selection

As mentioned earlier, according to the model advocated by Kaisse 1985, a process of simple cliticization, under the aegis of cliticization I and II above, first restructures the bracketed string supplied by the syntax so that the clitic, leaving a trace in its original position, is adjoined to its host. Subsequently, the rules of allomorphy read the rebracketed string to discern the appropriate phonological variant for the host-clitic cluster, and the final derivational stage is reached in (19).

Problems with the sort of representation created by (19) abound. First off, we end up with a string so littered with traces that eventually three consecutive empty categories stack up. Such a situation may not be unimaginable, but it is so irregular and ungainly as to immediately alert us to search for a more elegant account for (1b). Also, according to the current demands of government-binding theory, each of the empty categories in (19) must be properly governed[8], and in this sentence only *I[mə]* would have the lexical salience to be a proper governor. So by the structure of (19), one cliticized NP must properly govern three traces buried at varying depths within the phrase marker. The improbability of this set of circumstances is accented by Zagona's 1982 claim that a cliticized auxiliary cannot license even one trace. That is, in (20a) the VP trace can be properly governed and therefore licensed by the full auxiliary *is*. However, when that auxiliary is reduced by cliticization in (20b), the VP trace cannot be licensed due to the inability of a cliticized auxiliary to properly govern a trace.

(20a) He said he would be eating the king cake, and [VP eating the king cake]$_i$ he is t$_i$
(20b) *He said he would be eating the king cake, and [VP eating the king cake]$_i$ he's t$_i$

Given this restriction on the proper government of traces, no trace in (19)—much less all three traces—could be properly governed by the cliticized auxiliary found in *I[mə]*.

Another objection provoked by the proliferation of traces in (19) is the concern raised by the environment that *[going] to]* must move out of. In particular, following the first round of cliticization, *[going] to]* is encased by traces, a frame from which that constituent must be extracted by a second restructuring operation. Again, while it may not be impossible for cliticization to pluck an item out from between two traces, that sort of action is unlikely given the well-known reluctance of the clitic to move when any disturbance exists in its vicinity (cf. King 1970, Lakoff 1970). In fact, the

ungrammaticality of (21) provides direct evidence that *gonna* will not reduce when immediately followed by a syntactic gap.

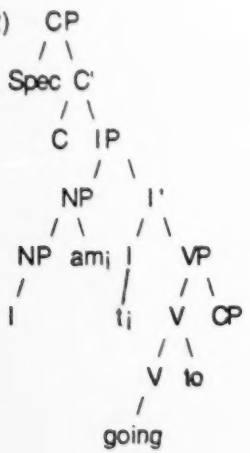
(21a) You're going to visit the Conderama and I'm gonna __ too
(21b) *You're going to visit the Conderama and I[mə] __ too

Furthermore, because the derivation in (19) would submit the "constituent" *[[[am] going] to]* to the rules of allomorphy for interpretation, a non-cyclic account of (1b) must claim that the chunk of the sentence represented by this constituent will be associated in the lexicon where it has a variant listing in the form of a suppletive allomorph. If this brand of allomorphic representation does indeed exist, then the unacceptability of (3b) and (4b) is puzzling since the lexicon would be just as likely to list a cliticized form for *[[[am] wanting] to]* and *[[[am] having] to]* as it is to list one for *[[[am] going] to]*. Certainly frequency of occurrence offers no basis for discrimination.

Related to this problem is the fact that such an approach does not utilize the allomorphs *I'm* and *gonna* which must be listed for sentences such as (11) and (16). In fact, the derivation in (19) implies that these variants have no role in deriving (1b). So, in one sense the non-cyclic approach leans heavily on the rules of allomorphy by requiring a listing for the suppletive allomorph of an improbable form, while in another sense this approach does not utilize the rules of allomorphy to their full extent, as well-motivated, pertinent allomorphs are ignored.

Finally, contrary to the usual government requirements restricting cliticization, cliticization II in (19) does not join together elements that are structurally related by government. The relevant configurational relations are illustrated by (22), a representation of the string that cliticization I produces in (19).

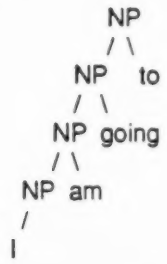
(22)



In (22), the NP *I*, which heads the category acting as the host for the impending *gonna*-reduction, bears no recognized structural relation with the clitic *[[going] to]*. That is, by the definitions in (14) and (15), the host and the clitic neither c-command nor govern each other. As such, cliticization II in (19) functions without regard for any of the structural guidelines such as (12) and (13) which control all the other forms of simple cliticization. Therefore, the operation of cliticization II directly and immediately onto a structure created by cliticization I, as a non-cyclic approach would have it, is incompatible with the evidence indicating that syntactic structure dictates the possibilities for simple cliticization.

Also, the non-cyclic derivation of (1b) necessitates another structural oddity following cliticization II. Because of the wholesale adjunctions onto the subject, before the selection of the cliticized allomorph and after all restructuring has taken place, we end with a subject NP whose phrase marker is given in (23).

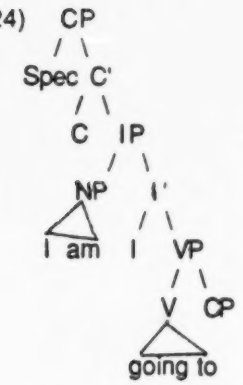
(23)



Contrary to the usual English formations, the head is deeply embedded and separated by a substantial amount of material from its maximal projection. Further, (23) is created by extensive left-branching, a highly marked construction in English. Avoiding constructions such as (23) which derive from the equally undesirable (22) should therefore be a premium concern when trying to account for (1b).

If we allow a cyclic derivation of (1b), as well as slight amendments to Mohanan's 1982 Opacity Principle and to Kaisse's 1983 NP-Host Condition, the problems raised by (19) disappear. To Mohanan's Opacity Principle we simply add the tenet that morphological information generated by one syntactic cycle is invisible at the next cycle just as in the original Opacity Principle the morphological information generated by one stratum of the phonology cannot be analyzed as we proceed to the next stratum. Part of the vanishing morphological information will be the traces left by the restructuring caused by cliticization. Since simple cliticization by definition only deals with string vacuous movements, the traces it leaves behind can be erased without any syntactic disruption. As the result of the structure created by morphological operations in one cycle becoming opaque at the next cycle, the adjunction structures and the attendant bracketing created by the restructuring of the first cycle's cliticizations will not be visible at the next cycle. Once the bracketing created during the cycle of cliticization I is abolished, (22) is transformed into (24).

(24)



In (24), with the excess bracketing created by cliticization I cleared away, the eventual host to *gonna*-reduction, *I*, appears in a position that c-commands the clitic *going to* which will be joined to the subject NP via cliticization II. Thus, as a result of the proposed modification of Mohanan's Opacity Principle, the host-clitic interaction in the case of *gonna*-reduction will now be mediated by the structural relationship of c-command.

To capture the role of c-command in constraining *gonna*-reduction, we will invoke and modify Kaisse's NP-Host Condition, which is given in (25).

(25) The NP-Host Condition: Auxiliaries may cliticize only onto a c-commanding NP.

So that it will apply to cases of *gonna*-reduction, (25) will be adjusted to permit verbs, in addition to auxiliaries, to cliticize onto a c-commanding NP[9]. As (24) shows, in a case such as (1b) the adjustment of Mohanan's Opacity Principle erases superfluous structure created by cliticization I to allow the subject host to c-command the clitic *[going to]*. Thus, when the NP-Host Condition has the form of (26), it properly constrains the operation of *gonna*-reduction.

(26) The NP-Host Condition: Reducible verbs may cliticize only onto a c-commanding NP.

With the Opacity Principle and the NP-Host Condition altered in the ways discussed above, the advantage of a cyclic derivation of (1b) becomes clear. Such a derivation is fleshed out in (27).

(27) **Cycle 1**

output of the syntax: [NP I] [Aux am] [VP [V going] [CP to eat some boudin]]

cliticization: [NP[NP I] am$_i$] [Aux t$_i$] [VP [V[V going] to$_j$] [CP t$_j$ eat some boudin]]

allomorph: [NP I]m]$_i$ [t$_i$] [VP [V gonna]$_j$ [CP t$_j$ eat some boudin]]

selection

Cycle 2 (By the Opacity Principle, the extra bracketing created in the previous cycle disappears as do the traces created in that cycle.)
output of cycle 1: [NP Im] [VP gonna [CP eat some boudin]]
cliticization: [NP [Im] gonna$_i$] [VP t_i [CP eat some boudin]]
allomorph: [NP [Im]ə]$_i$ [VP t_i [CP eat some boudin]]
selection

The problem caused by the proliferation of traces in (19) does not arise in (27) as the extended Opacity Principle ensures that the traces generated in Cycle 1 are not available for analysis in subsequent cycles. In particular, *I[mə]* now is expected to properly govern only one trace rather than the three empty categories it must govern in (19). Also, the final operation of cliticization no longer is forced to deal with an element that is surrounded by traces so that *gonna* does not move when a trace follows it, an environment shown by (21b) to be incompatible with *gonna*-reduction.

Also the rules of allomorphy under the cyclic derivation are used in a more consistent way. The intermediate allomorphs *I'm* and *gonna* both have a hand in the selection of *I[mə]*, and the lexicon must only list the irregular suppletive form for *[[Im] gonna]*, a far more likely candidate for allomorphic variation than *[[[[I] am] going] to]*, the unwieldy full form submitted to the rules of allomorphy by the restructuring operations of (19). In addition, we now have a principled explanation for the impossibility of (3b) and (4b). To derive those sentences via a cyclic approach, at the conclusion of the first cycle *to*-contraction would be effected by the selection of an allomorph for *[[wanting] to]* and *[[having] to]*. However, as Lobeck 1983 makes clear, *to*-contraction occurs only when the host verb is drawn from a select set of verbs which includes the progressive *going* but does not include *wanting* or *having*. Thus, in the derivation of (3b) and (4b), due to lexical restrictions on *to*-contraction, Cycle 1 could not be completed to feed Cycle 2 because at the close of Cycle 1 we cannot select an allomorph for *[[wanting] to]* or for *[[having] to]*. Hence the singular ability of *going* to appear in this sort of construction: *go* is the only verb with a progressive form hosting *to*-contraction and so this verb provides the only environment amenable to *to*-contraction and the progressive auxiliary *am*, an essential contributor to the formation of *I[mə]*. Without a cyclic approach we lose this argument because, as shown in (19), *to*-contraction never applies and therefore the peculiarities of this form of cliticization would be irrelevant to an explanation of the unacceptability of (3b) and (4b).

Finally, as noted above, the interaction of the extended Opacity Principle with the cyclic operation of the simple cliticizations at work in (1b) allows the restructuring of the string to proceed in adherence to the configurational restrictions of c-command and government which also direct other forms of simple cliticization. That is, removing the excess bracketing created by cliticization I *in* (27) according to the extended Opacity Principle structurally relates the elements crucial to cliticization II through c-command so that *gonna*-reduction proceeds under the auspices of the NP Host Condition. Therefore, utilizing the cyclic derivation of *I[mə]* shown in (27) allows us to capitalize on

existing principles such as the NP-Host Condition to characterize a construction like (1b), which given its complexity and its ostensible oddness, would at first appear to require constraining principles meant only to account for its properties. The fact that we can avoid such a complication in the grammar in regard to (1b) is a testament to the value of the cyclic derivation illustrated in (27). With this derivation, we can explain novel cases with principles motivated by entirely different constructions.

So by deriving (1b) within a cyclic framework, the operation of *gonna*-reduction can be brought into the fold of other forms of simple cliticization in terms of the allomorphic and syntactic principles controlling it. Also, a cyclic design for the grammatical component handling simple cliticization would align this component with the more established syntactic and phonological components. Thus, the cyclic approach outlined above both explains data emanating from the grammar of a specific language and standardizes the components forming the whole of a universal grammar.

NOTES

1 An anonymous reviewer points out that (1b) does not in all cases derive from (1a) since there are speakers who regularly produce (1b) and never produce (1a). For these cases, we will assume *I[mə]* has become lexicalized so that the simple clitic in (1b) is generated directly by the lexicon rather than being derived by the grammatical processes I will be describing throughout this paper. The clitic in (1b) for these speakers is therefore a lexical derivative. However, since (1b) is generally interpreted as (1a) as shown by the fact that a speaker in a formal setting will usually transcribe (1b) as (1a), for those speakers who make use of the full form (1a), I will take (1a) to provide the syntactic input which is transformed into (1b) by the phonological processes of cliticization. In this case, we will say that (1b) is grammatically derived.

2 A simple clitic contrasts with a special clitic, such as *lo* in (i), where the relation between the cliticized form (i) and its full-form (ii) is obscured by the syntactic reordering attendant to special clitics.

(i) Juan lo vió
Juan it saw
"Juan saw it"
(ii) Juan vió el libro
Juan saw the book

3 In fact, as we shall see, the vowel attached to *am* is not "taken" from *gonna* as such but is part of the suppletive allomorph chosen from the lexicon as the lexical representative of the structure created when *am* and *gonna* are adjoined.

4 As Zwicky points out, some clitics do combine with phrases. Still, the point remains that only clitics combine only with words.

5 Incidentally, the sentences of (9) can be subjected to another of Zwicky's tests to prove that *I [mə]* is a unitary word. This test states that if an element is bound to a host and therefore cannot occur isolated from that host, then the element in question should be a clitic. (9a-c) shows that no subpart of the *I[mə]* construction can appear in isolation, and so each constituent is bound to the overall clitic.

6 Again, we are considering the dialects where *I[mə]* is derived grammatically rather than generated directly by the lexicon.

7 An anonymous reviewer points out that it is unclear whether the stressed or unstressed vowel in *gonna* is preserved in the complex clitic *I[mə]*, and indeed the grammar itself obfuscates the issue. Allomorph selection for irregular, suppletive forms is wholly idiosyncratic, choosing an unpredictable token from the lexicon rather than phonologically altering the input form. Thus, the schwa in *I[mə]* derives from neither vowel in *gonna* (though a likely hypothesis is that the strong, stressed vowel asserts itself as the salient element), with the entire form ob the complex clitic being an idiosyncratic character of the lexicon.

8 "Proper government," as posited by Chomsky 1981 and followed thereafter by government-binding theory, holds that an empty category must not only be governed according to the definition of government given in (15), but its existence must be licensed through government by a category with sufficient lexical weight to recover the semantic content of the phonologically null category.

9 Ellen Kaisse (personal communication) points out that *gonna* shares many characteristics with auxiliaries. Like an auxiliary, *gonna* doesn't inflect while it does convey tense and take bare VP complements. Perhaps then, *gonna* is analyzed as an auxiliary, in which case the NP-Host Condition can handle *gonna*-reduction without further renovation.

REFERENCES

Bresnan, Joan. 1971. Contraction and the transformational cycle. Bloomington: Indiana University Linguistics Club.

Chomsky, Noam. 1981. Lectures on binding and government. Dodrecht: Foris.

-----. 1986. Barriers. Cambridge: MIT Press.

Kaisse, Ellen. 1983. The syntax of auxiliary reduction in English. Language 59.93-122.

-----. 1985. Connected speech: the interaction of syntax and phonology. New York: Academic Press.

King, Harold. 1970. On blocking the rules for contraction in English. Linguistic Inquiry 1.134-136.

Lakoff, George. 1970. Global rules. Language 46.627-639.

Lobeck, Anne. 1983. A government-binding approach to English *to*-complementizer contraction. University of Washington masters thesis.

Mohanan, Karuvannur. 1982. Lexical phonology. Bloomington: Indiana University Linguistics Club.

Zagona, Karen. 1982. Government and proper government of verbal projections. University of Washington dissertation.

Zwicky, Arnold. 1977. On clitics. Bloomington: Indiana University Linguistics Club.

-----. 1985. Clitics and particles. Language 61.283-305.

Zwicky, Arnold and Geoffrey Pullum. 1983. Cliticization vs. inflection: English *n't*. Language 59.502-513.